"6. So large a proportion as a 4000th, probably even a considerably larger proportion, will be insufficient if the salts be in a great measure muriates.

"7. In all cases, even though the composition of the water seems to bring it within the conditions of safety now stated, an attentive examination should be made of the water after it has been running a few days through the pipes, for it is not improbable that other circumstances besides those hitherto ascertained may regulate the preventive influence of neutral salts."

We have room now for only a single remark in regard to the forms of disease resulting from the poison of lead derived from lead pipes. This whole subject is comparatively new. There is reason, however, to think that the violent acute disease called *lead colic,* so frequently attacking workers in lead, and painters, is not so often the result of lead poisoning from water pipes, as *neuralgia* and *partial paralysis.* It is a matter deserving immediate and most serious consideration, whether the great increase which has recently taken place in the amount of neuralgic affections, may not be, in no small degree, dependent upon the use of lead pipe for the transmission of water for domestic uses. E. B.

ART. XXIII.—*Annuaire de la Mortalité Génévoise, Publié sur l'invitation du Conseil de Santé.* Par le Docteur MARC D'ESPINE, Membre du Conseil de Santé, Médecin de Prisons et de l'Institut des sourds-muets du Canton de Genève, Membre de plusieurs sociétés savantes. Annés 1844 et 1845; Genève, 1847. Brochure, p. 62.

GENEVA can boast of a registration of the mortality, births, &c., of her inhabitants, extending farther back than that of any other city of modern Europe—even to the year 1549. The records of three hundred years are now a most valuable acquisition, affording the best possible means of drawing comparisons between different periods, and ascertaining the influences exerted through the improvements in civilization. The fact they demonstrate, of the great increase in the mean duration of life, is itself sufficient to show the great value of registration, so tardily adopted, and carelessly attended to, in other cities, especially those in the New World.—We learn from the Genevese records, that towards the close of the seventeenth century, the probable duration of life was not over twenty years; at the close of the eighteenth century it attained to thirty-two years, and at present it has reached forty-five years.

The report under consideration shows the refinement to which the system of registration has been brought in Geneva. It gives not only the sums of mortality, but the specific cause of each recorded death, with its general character and duration. The following few examples will illustrate the plan pursued.—*Février 2e, f. 54. Pneumonia gauche, 15 jours de maladie. Mars 6 m. 63 Pneumonie, base droite, mort en 7 jours. Juin 44 rm. Erysipèle de la face, mort le 8me jour (autopsie), meningée saine, cervelet ramolli. Setem. 31, pf. Grossesse, péritonite hémorrhagique, expulsion d'un fœtus de 6 semaines pendant la maladie (autopsie), péritonine plein de sang, pas de foyer hémorrhagique evident.*

Through a system of abbreviations and signs, a line or two is made to show the most important information relative to each decease recorded. Thus, the figures following the date, indicate the age. If this sum is not followed by any letter, it signifies years; if followed by an *m,* or a *j,* or an *h,* it shows the months, days and hours. In a very few cases, where the age could not be indicated, ciphers were substituted. The letters *m,* or *f,* indicate the sex, whether masculine or feminine. Sometimes the sexual letter is preceded by an *r,* or a *p,* when it signifies that the individual was rich or poor. The deaths of citizens are distinguished from those of the country, by the letters indicating the sex and condition being placed perpendicular, whilst those for the country are in *italics.*

So much for the particular signs. The general arrangement admits, 1st, of a comparison of the whole number of deaths with the population. 2dly, a comparison of the deaths of the rich and the poor, from the city or country. 3dly, the law of mortality as influenced by months, seasons and different ages. 4thly, the mean duration of life at any given age, with the average mortality, &c. Meteorological observations, kept at the observatory, are attached, for the period of registration, together with statistical and topographical observations relative to the affairs and local condition of the canton. In conclusion, a series of supplementary notes afford more particular details in regard to certain cases included in the records, such as the nature of the accident, instrument or means of suicide, &c.

One of the most interesting points connected with the Genevese records of mortality, is the mode of establishing the accuracy of the details serving as the basis of the statements. The deaths, without any exceptions, are all certified to by physicians, not only the attendant, but those specially appointed to this duty by the Health Office. By these, notes, more or less extended, are made out, in regard to the deceased, and the morbid or accidental causes which led to death. These notes are examined every fifteen days by a medical board, discussed, and sometimes extended or modified. Even after all this, the note of registration is carried to the attending physician, who adds to it all the information interesting to record. This last duty is performed at the special request of Professor de Roches, dean of the medical faculty, at whose expense it is continued. What a commendable zeal in the cause of science is shown by this enlightened and liberal professor!

The classification of deaths adopted in this report, differs materially from that of the British Registrar General, and the one recommended by the American Medical Association. The general division is first into six principal classes or groups, namely, *still-born, external accidents, diseases, vices of organization, and old age.* There can be little diversity of opinion in relation to this general division of the causes of death. But when it comes to a more particular classification of the diseases, this unity of views ceases. We shall translate our author's words upon this subject. "Most of the nosological tables of mortality," he observes, "exhibit classifications more or less anatomical or physiological; the author is convinced that this principle is fallacious when it is designed to construct a table with the view of showing the influence of general causes in the production of mortal diseases. The principle which ought to govern in the classification of mortal diseases is the pathological, because in the present advancement of science it is known that general causes operate differently and in accordance with the nature of the diseases, rather than in relation to the organs affected. The nosological distinction of greatest importance rests upon the *acute* or *chronic* characters of diseases. Acute diseases themselves differ essentially, according as they are simple inflammations such as may be artificially produced by the application of a mere mechanical or chemical agent, or as they may possess a *specific* character preventing their creation artificially, or by simple irritation. Chronic diseases differ according as they are the result of some particular vice, such as that producing scrofula, tubercles, cancers, or, as they are the simple result of a chronic inflammation, leading to a hypertrophy, atrophy, induration, or a softening of the organs. This is the substance of the true principles of classification for fatal diseases which we wish to study in their relations to general causes appreciable through statistical investigations."

It appears from the report of Dr. d'Espine, that the deaths for four years in the entire Canton of Geneva, averaged 2.02 per cent. of the population, a very low rate of mortality, being little over one death to fifty inhabitants. This small proportion of deaths compared to what we find in some other countries in Europe, and especially in some of the cities of the United States, is in part owing to the smaller proportion of births, the average of which during four years was only 2.09 per cent. of the population, a fraction more than the average mortality. As the proportion of deaths in childhood is greater than at the more advanced periods of life, a large amount of births must necessarily lead to an increase in the proportion of the general mortality to the population. It must also tend to reduce the average mean duration of life. Hence, Geneva appears to have a smaller proportion of deaths to her population than other places where the amount of infants is much greater.

In estimating the rates of deaths, births, etc., to the population, reference should, if possible, be made to the influences of immigration and emigration, circumstances which often invest such subjects with great obscurity. "It is clear," says our author, "that in a country where adult emigration predominates, the proportion of deaths to the remaining population will rise, as in a country without emigration, the proportion of births to the population will be increased. Either of these circumstances has for result the increase of the infantile population, that in which the deaths are in greatest proportion compared with those occurring at other periods of life. But the difference observable between a population chiefly prolific, and one chiefly emigrant, compared with a stationary population, is, that in the first the proportion of births to the population increases much more than that of the deaths to the population, whilst in the second it is the proportion of deaths to the population which undergoes increase to a greater extent than that of the births."

G. E.

ART. XXIV.—*Lectures on the Theory and Practice of Physic.* By JOHN BELL, M.D., Mem. of the Amer. Med. Assoc., and of the Med. Soc. of the State of Pennsylvania, Fellow of the Coll. of Phys. of Philada., Mem. of the American Philosoph. Soc., and of the Georgofilii Soc. of Florence, &c. &c., and WM. STOKES, M.D., Lecturer at the Med. School, Park St., Dublin, Physician to the Meath Hospital, &c. &c. Fourth edition: 2 vols. 8vo., pp. 784—976. Philadelphia, Ed. Barrington and Geo. D. Haswell, 1848.

THESE lectures exhibit a curious instance of the original author becoming, in a great degree, subsidiary to his annotator and editor. From the addition, by Dr. Bell, of lecture after lecture, in each successive edition, to the few which he was induced to append, in the first instance, to those of Dr. Stokes—the work has grown from a comparatively small size to two ponderous volumes, in which the amount of matter contributed by the former greatly exceeds the original text of the latter. By these additions the lectures, instead of being restricted, as at first, to the consideration of a few diseases only, embrace now a very full account of nearly all the maladies to which the human organism is liable. In place of further augmentation, the work would seem to demand rather the labour of retrenchment, in some, at least, of its parts. Familiar with the labours of those who, as well at home as abroad, have of late years advanced, by the extent and accuracy of their observations, our knowledge of every department of pathology and therapeutics, Dr. Bell pours forth with no niggard hand of his own fullness of matter. No one can rise from the perusal of his lectures dissatisfied in consequence of the paucity and incompleteness of the information they communicate, if he have no reason to complain of their occasional diffuseness. In his desire to pass in review the opinions derived from every authoritative source, the lecturer has, perhaps, occasionally overloaded his subject, and rendered less clear and precise the doctrines he would himself inculcate, by the very means he has taken to illustrate and confirm them.

The work is, nevertheless, a most valuable one, and may with great confidence be referred to as a very full and accurate transcript of the present condition of medical knowledge, in reference to each of the subjects of which it treats; as well as for much sound doctrine in regard to the character and management of many of those diseases which, from their extensive prevalence in certain sections of our country, are of especial interest to the American physician; in this respect, the lectures of Dr. Bell on the leading forms of fever, especially, may be consulted with profit by all who are called upon to practice in the southern and western portions of the United States.

The authors have done ample justice to the labours of the leading modern physicians, both at home and abroad. The contributions to our knowledge derived in particular from British, American, and French observers, are noticed at length. The works, however, of the physicians of Germany have evidently been consulted less frequently than their value would seem to demand. By the German physicians the field of general and special pathology has, of late years, been cultivated with uncommon care and industry, and to their researches we are indebted for a mass of valuable facts calculated to throw not a little light upon many of the more important forms of disease. Of many of these facts our authors have been put in possession indirectly: we complain not that the lectures before us are deficient in important medical facts derived from particular sources, but that the additions